# DARFUR MORTALITY UPDATE: January 18, 2005; Current data for total mortality from violence, malnutrition, and disease

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Eric Reeves January 18, 2005

The international news cycle continues to be dominated by attention to the apparently inexorable rise in tsunami casualtie toward a figure of 200,000 throughout Southeast Asia. And yet at the same time, evidence strongly suggests that total mortality in the Darfur region of western Sudan now exceeds 400,000 human beings since the outbreak of sustained conflinin February 2003. In other words, human destruction is more than twice that of the recent tsunami---and has now surpassed the half-way mark for the most commonly cited total for deaths in Rwanda during the genocide of 1994 (800,000).

Moreover, as international humanitarian aid continues to stream abundantly toward the various areas devastated by the tsunami, the threat of massive secondary death from health-related causes has begun to diminish. By contrast, in Darfur t current mortality rate from genocide by attrition is approximately 35,000 per month (see below) and poised to grow rapidly Jan Egeland, UN Undersecretary for Humanitarian Affairs, predicted a month ago that the world might see a figure of 100,000 civilian deaths per month if growing insecurity forces a withdrawal of humanitarian relief organizations (The Financial Times [UK], December 15, 2004). This assessment is strongly supported by prospective assessments of food deficits from the International Committee of the Red Cross and the US Agency for International Development.

Simply to juxtapose these two human catastrophes is to raise implicitly a series of deeply troubling questions about the priorities of news coverage, the commitments of the international political community, the responsibilities of humanitarian organizations, and the nature of our response to distant human suffering and destruction. To the extent that these are questions about the meaning of numbers, scale, and statistics, it offers an occasion for this writer to provide some explanation of his continuing efforts to synthesize all data and evidence available by way of ascertaining the most reasonable current estimate of human mortality in Darfur.

## RATIONALE FOR DARFUR MORTALITY ASSESSMENTS

Why should anyone attempt to achieve greater statistical accuracy in rendering the realities of human destruction in Darfur There are in fact two answers---one moral, one pragmatic (though for some these will not be conceptually distinct).

This writer believes that it is immoral for people to die invisibly, victims of deliberately targeted ethnic destruction, without any attempt made to give to these terrible deaths the exceedingly modest dignity of a statistical reckoning. To be sure, many tens of thousands have died beyond the reach of photographic, journalistic, or even forensic reach. We will never have a anything approaching a full roster of names for those who have become victims of Khartoum's orchestrated violence against Darfur's non-Arab/African tribal groups, or the regime's deliberate efforts to "inflict on these non-Arab/African triba group conditions of life calculated to bring about their physical destruction in whole or in part" (language adapted from the 1948 UN Convention of the Prevention and Punishment of the Crime of Genocide, Article 2 [c]). But this lack of a fully accurate roster does not meaningfully distinguish genocide in Darfur.

Indeed, it is worth recalling here that while 800,000 is the figure most commonly cited for the Rwandan genocide, there are other estimates that continue to be proffered, from "over half a million" to "almost a million." The most authoritative and comprehensive historical overview of the genocide ("Leave None to Tell the Story: Genocide in Rwanda," from Human Rights Watch; lead author Alison des Forges, at http://www.hrw.org/reports/1999/rwanda/), concludes:

"Our researchers computed an estimated loss of 75 percent of the Tutsi population in that prefecture. Based on these preliminary data, we would conclude that at least half a million persons were killed in the genocide, a loss that represented about three quarters of the Tutsi population of Rwanda." ("Leave None to Tell the Story: Genocide in Rwanda," section on "Numbers," at http://www.hrw.org/reports/1999/rwanda/Geno1-3-04.htm#P95\_39230).

But as the Human Rights Watch study also notes:

"Estimates of persons killed at any one site vary widely, often by a factor of ten or more, perhaps because most have beer made by untrained observers." ("Numbers")

Moreover, we catch a glimpse of the exceedingly difficult demographic issues in another important moment in this section the Human Rights Watch study:

"Whether or not [Rwandan] census data were purposely altered to reduce the number of Tutsi, the figures underestimated the Tutsi population because an undetermined number of Tutsi arranged to register as Hutu in order to avoid discriminatio and harassment. Although many Rwandans know of such cases, there is at present no basis for estimating how many persons they represented." ("Numbers").

We will never know the real total for genocidal mortality, even as Rwanda is a country a great deal smaller and more accessible than the Darfur region of Sudan; moreover, the genocide in Rwanda took place in a matter of months. By contrast, the conflict in Darfur will soon enter its third year, and the remoteness and difficulty of the land ensure that we must of necessity continue to make broad statistical inferences in arriving at mortality estimates. There is also very substantial evidence, from a number of highly authoritative sources, that the Khartoum regime has used this extended period of time to obscure or obliterate the evidence of genocidal destruction, including the movement of corpses by means of ground and aerial transport.

But the task of mortality assessment cannot be avoided simply because of its difficulty, or the inevitably large margin of error. As the new "Introduction" to the Human Rights Watch study compellingly argues:

"Human Rights Watch reissues this book---substantially the same as the original printing---to ensure that a detailed history of the genocide remains available to readers. [] The horrors recorded here must remain alive in our heads and hearts; onl in that way can we hope to resist the next wave of evil." ("Introduction")

The "next wave of evil" is presently engulfing Darfur, and this is at least in part because of the moral laziness and intellectual timidity that are responsible for there being no better sense of the scale of this vast human catastrophe. This is the final justification for ongoing efforts at mortality assessment.

## CURRENT NEWS ACCOUNTS OF MORTALITY IN DARFUR'S GENOCIDE

Most news sources reporting on Darfur continue to cite a figure of "70,000" for total mortality in Darfur, even though this i a figure that, when tracked to its origin, is based only upon a September 13, 2004 UN World Health Organization (WHO) estimate of mortality in accessible camps for displaced persons, limited to the period from April 2004 through early September of 2004.

The figure was not, and was never meant to be, a total mortality assessment for Darfur (see Appendix 2 below, and the explicit confirmation of this fact by Dr. David Nabarro, chief of UN World Health Organization emergency operations, Geneva, Switzerland; email to this writer, September 15, 2004).

The figure, originally "50,000" (September 13, 2004) and subsequently updated to the current "70,000" (November 2004), is more significant for what it does not include than for what it does: it does not include mortality for the period February 2003 to March 2004; it does not include mortality among the more than 200,000 refugees in Chad; it does not include

conflict-related mortality in inaccessible regions of Darfur or among unregistered displaced persons in camp and urban environs; it does not include mortality since mid-November 2004; it does not include estimates of what epidemiologists ref to as "deferred mortality" (consequent upon present trauma and deprivation); and most significantly, it does not include a figure for violent deaths.

And yet still the figure of "70,000 deaths" persists. In some cases, even the September 2004 figure of "50,000 deaths" has not been updated: scandalously, an editorial in yesterday's Los Angeles Times used precisely this outdated and extremely limited figure: "The death toll in Darfur is estimated at 50,000" (The Los Angeles Times [editorial] January 17, 2005).

This is shamefully irresponsible journalism.

So, too, is an Associated Press dispatch of today (January 18, 2005), which declares simply that "conflict between government-backed forces and rebels in the western Darfur region has killed an estimated 70,000." This figure continues a pattern of error that is now months old. And it appears in various forms: on January 11, 2005, Associated Press reports, "about 70,000 people have died through disease, hunger and attacks in Darfur."

Other news-wire services are no better. Reuters reported yesterday (in a dispatch picked up by many, including the New York Times):

"Ethnic warfare still rages in Darfur, in the west, where fighting between African rebels opposed to Mr. Bashir's rule and Arab tribes on the side of the government has killed 70,000." (Reuters, January 17, 2005)

On January 12, 2005 Reuters reported: "About 1.7 million people are homeless and 70,000 are estimated to have died in Darfur."

Agence France-Presse is guilty of similarly irresponsible journalism:

"The [Darfur] conflict, pitting mainly black African rebel groups against Arab militia in the pay of Khartoum, has claimed th lives of 70,000 people and displaced 1.5 million others." (Agence France-Presse, January 16, 2005)

Knight Ridder news service reports on January 9, 2005 that "the war in Darfur has taken an estimated 70,000 lives."

MENA (Middle East On-Line) reports:

"Conflict between the government and rebels continues to rage in the western Darfur province, having claimed the lives of 70,000 people and displaced 1.5 million others since February 2003." (January 17, 2005)

Voice of America reports:

"Last year, the African Union began sending peacekeepers to Darfur, where two years of fighting between rebels and government-backed militias have claimed an estimated 70,000 lives." (January 14, 2005)

The BBC reports:

"About 70,000 people have died and two million have been made homeless in Darfur since government-backed Arab militia began a violent campaign against black Africans in the region." (January 12, 2005)

Even human rights organizations contribute to the viability of this highly distorted estimate of global mortality in Darfur. In an interview with Spiegel International (January 14, 2005), the Associate Director for Human Rights Watch, Carroll Bogert, responded to a question about the emphasis of the recent Human Rights Watch Annual Report:

"SPIEGEL: In the opening essay of your report, you state that the torture and Abu Ghraib and the mass killings in Darfur,

Sudan, were the greatest human rights problems of 2004. But in Sudan 70,000 people died. How can you compare the two?"

"BOGERT: These were very different kinds of events. In Darfur we're talking about the deaths of over 70,000." (Spiegel International, January 14, 2005)

But again, it must be stressed that there is no authority---none whatsoever---for "70,000" as a global mortality figure in Darfur. Only with explicit, detailed qualification of what lies behind this figure does it have any meaning. Such qualification almost never in evidence

Indeed, even when the distorted estimate is qualified, it is worth noting the poor research lying behind the qualifications. For example, Agence France-Presse reported inaccurately yesterday:

"Around 70,000 people are estimated to have died in the past several months alone." (Agence France-Presse, January 17, 2005)

Associated Press does only marginally better:

"There is no official estimate of the death toll of the two-year conflict, though 70,000 have died from disease and famine since last March." (January 13, 2005)

To be sure, a number of news organizations, editorial boards, and journalists have taken cognizance of mortality assessments by this writer and the data from which they are drawn; and these now either form the basis for figures of record or are part of the range of estimates offered. These news sources include: the editorial boards of the Washington Post and Boston Globe; Bloomberg news; the Canadian Broadcasting Corporation (see CBC website at: http://www.cbc.ca/correspondent/feature\_050130.html); and experienced Sudan journalists such as Julie Flint (e.g., see recent article in the International Herald Tribune and the Daily Star [Lebanon] at http://www.iht.com/getina/files/214939.html).

But the dismaying journalistic reality is that news organizations, news reporters, and news editors have contented themselves with a shockingly distorting mortality figure for Darfur's ongoing genocide---perversely at the very moment that tsunami mortality estimates continue to be a daily staple of news headlines. The larger effect of this slovenliness is to diminish our general understanding of the scale of human suffering and destruction in Darfur, and to make meaningful international response commensurately less likely.

In fact, there is a deeply disturbing pattern of diminished news coverage of the world's greatest humanitarian crisis (the UN's assessment of Darfur). For its part, the Khartoum regime is well aware of this attenuation of news coverage and will certainly act accordingly. Moreover, in light of the recently signed north/south peace agreement, Jan Pronk (Kofi Annan's special representative to Sudan) is certainly right when he recently suggested to the UN Security Council that:

"Sudanese government forces might be tempted to think the conclusion of the north-south peace accord would provide a brief window of immunity from international criticism on their actions in Darfur, [said Pronk]." (UN Integrated Regional Information Networks, January 13, 2005)

Counting on a very finite amount of news coverage devoted to Sudan, and the numbingly repetitive quality of genocide by attrition, Khartoum has correctly calculated that the agreement in Nairobi will remove Darfur from what share of the international spotlight it has been able to command. Genocidal destruction again occurs mainly in the darkness of a news reporting eclipse, as was the case for so many months prior to the spike in news coverage this past summer and fall.

## CURRENT CONTEXT FOR GENOCIDE BY ATTRITION

Pronk also reported in his monthly briefing that:

"Conflict was spreading outside Darfur. [] The violence, he added, was affecting humanitarian work more frequently and more directly than bureaucratic restrictions ever did, with fatal and tragic consequences.'[] 'Large quantities of arms have been carried into Darfur in defiance of the Security Council decision taken in July,' Pronk sate 'December saw a build-up of arms, attacks of positions, including air attacks, raids on small towns and villages, increased

This returns us to what will be the dominant question in the coming months, and the primary determinant of how rapidly human mortality in Darfur accelerates: will the international community do anything to provide security for increasingly endangered humanitarian operations in Darfur? Will we see Jan Egeland's prediction of up to 100,000 civilian deaths per month become a reality? Will there be an international intervention that offers protection to the extremely vulnerable civili populations in camps for the displaced and in inaccessible rural areas? Will humanitarian transport convoy routes be secured? Will Khartoum's brutally rapacious Janjaweed militia allies be disarmed, per the "demand" of UN Security Council Resolution 1556 (July 30, 2004), or allowed to continue their genocidal marauding?

There are no encouraging answers in evidence. On the contrary, all evidence suggests that genocide by attrition will continue indefinitely, requiring numerous future iterations of the present effort.

## DISAGGREGATED MORTALITY ESTIMATES FOR HUMAN DESTRUCTION IN DARFUR

banditry [and] more looting." (UN IRIN, January 13, 2004)

There are two appendices offered here in support of the conclusions about global mortality in Darfur with which this assessment begins: Appendix 1 on violent deaths, which derives largely from the October 8, 2004 mortality assessment; a Appendix 2, which offers an update on deaths from malnutrition and disease, but still derives primarily from data in previo assessments.

Overview of Appendix 1: There have been no recent important additions to the data or reports bearing directly on violent mortality. It is, however, important to bear in mind a conclusion reached in a key study of violent mortality (The Lancet, October 1, 2004, "Violence and mortality in West Darfur, 2003-04," at http://www.msf.fr/documents/base/2004-10-01-Depoortere.pdf) and reiterated by Doctors Without Borders/Medecins Sans Frontieres (MSF) at the beginning of December 2004:

"Mortality studies carried out by MSF show that during the early phases of the Darfur conflict the pattern of repeated violence and consequent displacement was the cause of very high mortality." (MSF, Brussels/Khartoum, December 1, 2004)

Given the high levels of continued violent displacement in Darfur over the past three months, we must assume that there have been many more violent deaths. The most recent UN Darfur Humanitarian Profile (No. 9, December 1, 2004) indicate an increase of approximately 200,000 displaced persons in accessible camp areas since the estimate of October 1, 2004 (Darfur Humanitarian Profile No. 7). Thus additional mortality from violence may be calculated using MSF data as the basis for estimating violent displacement as a percentage of overall displacement; assuming an average Darfuri family size of fiv and relying upon a key statistical assessment of the likelihood of a family member witnessing another family member being killed (61% of those interviewed, according to an authoritative study by the Coalition for International Justice, "Documenting Atrocities in Darfur," at http://www.state.gov/g/drl/rls/36028.htm). This calculation suggests that an additional 15,000 violent deaths must be added to the previous total, yielding an approximate current figure of 215,000.

Overview of Appendix 2: This account presents data and analysis indicating that approximately 135,000 people had died o disease and malnutrition in the greater Darfur humanitarian theater as of November 16, 2004.

The mortality assessment of November 16, 2004 also provided data (primarily from the UN's World Health Organization an UN Darfur Humanitarian Profiles, No. 6 [September 1, 2004] and No. 7 [October 1, 2004]) indicating a monthly mortality rate of 30,000 (full text of this previous mortality assessment is available at:

http://www.sudanreeves.org/modules.php?op=modload&name=Sections&file=index&req=viewarticle&artid=226&page=1

Given the continuing severe shortfalls in humanitarian relief, this monthly mortality rate is clearly rising along with the glob Crude Mortality Rate (the CMR measures deaths per day per 10,000 of affected population); the denominator for the curre CMR is certainly also increasing.

[January 18, 2004: here the continued increase in the number of displaced persons is of particular relevance, as is the larg growth in the "conflict-affected population": 2.2 million in the accessible camp areas and among host populations of Darfu alone, according to the UN's most recent Darfur Humanitarian Profile, No. 9, December 1, 2004).]

An increasing CMR and a population of more, and more severely affected, persons justifies extrapolation of a current monthly mortality rate of approximately 35,000, or approximately 70,000 since the November 16, 2004 assessment.

In short, approximately 200,000 people have died from disease and malnutrition since the beginning of the sustained conflict in Darfur, and approximately 215,000 from violence. Total mortality in Darfur---estimated at 370,000 as of December 12, 2004---now exceeds 400,000.]

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Appendix 1: adapted from October 8, 2004 Retrospective Assessment of Violent Deaths, with interpolations of current data -

The previous mortality analysis by this writer [September 15, 2004] highlighted several important new sources of mortality data. The most important of these was a very extensive study conducted by the distinguished Coalition for International Justice ("Documenting Atrocities in Darfur"). On the basis of 1,136 carefully randomized interviews, conducted among the Darfuri refugee population in Chad at a number of camp locations along the border, the Coalition for International Justice (CIJ) found that "sixty-one percent [of those interviewed] reported witnessing the killing of a family member."

The total number of refugees in Chad is now greater than 200,000. If we assume that this population of persons displaced from Darfur is representative of many hundreds of thousands of violently displaced persons within Darfur, then the total number people represented by the CIJ study is over 1.5 million, and may reach to 2 million.

How do we establish the approximate figure for those people violently displaced, either into camps, into towns, within inaccessible rural areas in Darfur---or into Chad?

In its most recent "Darfur Humanitarian Profile," the UN Office for the Coordination of Humanitarian Affairs estimated that 1.45 million people have been displaced into accessible camps within Darfur; this figure is based on food assistance registrations by UN and nongovernmental humanitarian organizations ("Darfur Humanitarian Profile," No. 6, September 1, 2004). The UN report also estimates that an "additional 500,000 conflict-affected persons are in need of assistance" (page 9), and it is reasonable to assume that most of these are displaced persons in inaccessible rural areas. (Even a figure of 500,000 almost certainly understates the number of displaced persons in rural areas.) Moreover, the UN report does not attempt to assess either the host communities or the size of displaced populations in the three state capitals because there are still no systematic food registrations in these large urban areas.

Thus out of a total displaced population in Darfur of well over 2 million, we require an estimate of the number of persons who experienced violent displacement of the sort that created refugees in Chad. Given the extremely high level of village destruction throughout Darfur, and the tenacity with which these people have sought to cling to their land and livelihoods, displacement per se is a very likely indicator of violent displacement. Moreover, an epidemiological study published in The Lancet offers clear evidence that displacement is overwhelmingly related to violent attacks. In two camps, Zalingei and Murnei, statistically rigorous assessments found that "direct attack of the village" accounted for displacement of 92.8% of the Zalingei population and 97.4% of the Murnei population (The Lancet, October 1, 2004, "Violence and mortality in West Darfur, 2003-04").

If we very conservatively assume that 80% of the total displaced populations that have remained in Darfur were driven to flee by "direct attack on villages," the number of violently displaced persons is 1.6 million.

This yields a total figure of violent displacement, for Chad and Darfur, of very approximately 1.8 million. The average famil size in Darfur is slightly more than five, suggesting that a population of 1.8 million represents almost 360,000 families. If randomized interviews by the Coalition for International Justice (CIJ) find that "sixty-one percent [of those interviewed] reported witnessing the killing of a family member," then this yields a mortality figure for violent deaths of over 200,000 human beings.

Caveats and other considerations:

There is some chance that despite randomizing of interviews in Chad, and multiple camp locations at which interviews wer conducted, overlaps exist in the "family members" identified as having been seen killed. This is a negligible number if "family" refers to nuclear family. Indeed, the chances of overlap even for members of extended families are quite small, given the diversity of interview locations.

More significant is the fact that those conducting interviews for the CIJ found that interviewees often reported more than one family member had been killed, often several more than one. Yet the statistical derivation offered here presumes that only one family member has been killed among the 61% who reported seeing (at least) one family member killed.

Secondly, the study cannot take account of the number of families in which all members were killed, and who thus had no reporting presence in the camps where interviews took place. The CIJ study does report that 28% of those interviewed "directly witnessed" persons dying from the consequences of displacement before reaching Chad. These deaths must be considered the direct consequence of violence, if not violent deaths per se, and would significantly increase violent mortali totals.

Moreover, the CIJ study indicates that 67% of those interviewed "directly witnessed" the killing of a non-family member. A the raw data from the CIJ study is soon scheduled for release, it may be possible to put this extraordinary figure in a statistical context yet more revealing of violent mortality. Given the number camp locations (19), and the randomizing techniques used within the camps---

"refugees were selected using a systematic, random sampling approach designed to meet the condition in Chad. Interviewers randomly selected a sector within a refugee camp and then, from a fixed point within the sector, chose every 10th dwelling unit for interviewing. [] One adult [per dwelling unit] was randomly selected [for interviewing]"---

---the figure of 67% of refugees "directly witnessing" the death of a non-family member strongly suggests that assumption made in this analysis may lead to significant underestimation.

[January 18, 2005: The population of displaced persons in Darfur has increased by at least 200,000: from 1.45 million (as reported in UN Darfur Humanitarian Profile No. 6, September 1, 2004) to 1.66 million (as reported in UN Darfur Humanitarian Profile No. 9, December 1, 2004). Using the methodology of this appendix, including the CIJ findings and da reported in The Lancet, suggests an additional 15,000 have died violent deaths in recent months. A conservative estimate for total violent deaths over the past 23 months of conflict is thus 215,000 human beings.]

Appendix 2: November 16, 2004: Retrospective Assessment of Deaths from Disease and Malnutrition, with interpolations o current data--- Mortality figures and reports continue to be badly misrepresented in news accounts; this is true in particular of the assessment by the UN World Health Organization study of health-related mortality in Darfur. This misrepresentation has had the extremely unfortunate effect of giving apparent UN authority to a putative total morality figure of "50,000" deaths (and more recently "70,000"). What the WHO study and accompanying public commentary represented---as explicitly confirmed to this writer by Dr. David Nabarro, chief of emergency operations for WHO---was a figure of more than 50,000 deaths fro disease and malnutrition, from early April 2004 to early September 2004, in camps to which there has been humanitarian access:

## ["Dear Eric [Reeves],

I fear that remarks I made at a Press Briefing on September 13th 2004 were misquoted. I said that we estimate that at least 50,000 Internally Displaced Persons have died from disease (in some cases exacerbated by malnutrition) since April 2004.

#### Best wishes,

David Nabarro," (chief, UN World Health Organization emergency operations, Geneva, Switzerland; received via email, September 15, 2004)]

The WHO figure did not include deaths from disease and malnutrition prior to April 2004 (again, the conflict began in February 2003); it did not represent mortality in Chad; and it did not represent mortality in areas inaccessible to humanitarian operations. Most significantly, it did not include violent deaths. In short, the September WHO figure was of highly limited relevance.

In further communication with this writer, Nabarro indicated that he estimated that 10,000 were dying every month in camps for the displaced, i.e., the higher end of the publicly promulgated WHO monthly mortality range. In the two months since the WHO report was published (assuming Nabarro's higher mortality rate), 20,000 people have died, suggesting that more than 70,000 people have died [as of mid-November 2004] in accessible areas since April 2004.

Mortality in rural areas to which there is no access is best assessed on the basis of the US Agency for International Development projections ("Projected Mortality Rates in Darfur, 2004-2005" (http://www.usaid.gov/locations/sub-saharan\_africa/sudan/cmr\_darfur.pdf). We may use as a conservative denominator for these projections the figure of 500,000 inaccessible persons in need of humanitarian assistance, promulgated by the UN in its September "Darfur Humanitarian Profile" No. 6 (troublingly, no updated figure was estimated in the October "Darfur Humanitarian Profile" No. 7). For the past five months, US AID projections indicate an average Crude Mortality Rate of almost 10 per day per 10,000 (for a population without humanitarian relief and experiencing severe food shortages). Over 150 days, assuming an average denominator of 500,000, total mortality is approximately 75,000. These deaths would be primarily among very young children, the elderly, and those made vulnerable from violent trauma.

Still, a figure of 75,000 may be too high for several reasons, primarily the highly developed foraging abilities of these peop and the use (and likely exhaustion) of food reserves. On the other hand, insecurity produced by continuing Janjaweed predations would compromise both of these food sources. If we assume (conservatively) that a figure of 75,000 overstates by 100%, this still leaves a figure of over 35,000 deaths from malnutrition and related disease over the past five months in inaccessible areas of Darfur. Together with the figure deriving from the September WHO report and data, this suggests a composite figure of 105,000 deaths [as of November 16, 2004] from malnutrition and disease since April 2004.

Still excluded from this figure, however, is the number of deaths from disease and malnutrition during the period February 2003 to April 2004. During this period several humanitarian organizations reported high Crude Mortality Rates at various junctures. Many thousands died in the camps, especially children, though there is no systematic data that permits extrapolation of a total figure. If we assume a level of death from disease and malnutrition only one-fifth the current rate estimated by WHO (for a stronger camp population, and one that has only gradually grown to its present size), then anoth 30,000 have died from these causes.

[January 18, 2005: Total mortality from disease and malnutrition, assuming a monthly mortality rate of 35,000 throughout

the entire humanitarian theater, is thus approximately 200,000; again, for an account of current monthly mortality, see http://www.sudanreeves.org/modules.php?op=modload&name=Sections&file=index&req=viewarticle&artid=226&page=1